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THE JOURNAL OF PHILOSOPHY

IS THE EXISTENCE OF OTHER MINDS A NECESSARY POSTULATE OF SCIENTIFIC KNOWLEDGE?

SOME few writers, such as Professor Alexander, maintain that we know of the existence of other minds through direct acquaintance. More numerous are those who hold that we have such knowledge as the result of a valid inference. At present, however, the general belief seems to be that we have no certain knowledge of the existence of consciousnesses other than our own. If this latter view be true, the question at once arises: Is it necessary, in order to develop a large body of scientific knowledge, to suppose that other minds exist? It has been generally assumed that testimony can not validly be accepted unless it come from a conscious individual. Thus, Bertrand Russell says,[1] "Testimony depends upon the existence of minds other than our own." And again, without the belief in other minds "testimony heard or read is reduced to noises and shapes, and can not be regarded as evidence of the facts which it reports."

I grant that to know of anything beyond immediate acquaintance it is necessary to postulate the validity of memory and the "uniformity of nature." We can observe so little in any one stroke of the attention that, without memory, we could never build up any very large amount of knowledge. And, as Hume has pointed out, the "uniformity of nature" must be presupposed if we are to have any knowledge about the unobserved. But that the *existence of other minds* is a *necessary postulate of knowledge* appears to me very doubtful. I believe that such validity as we ascribe to testimony is based upon an inductive inference reached on the basis of observation, memory, and the principle of uniformity.

I shall first point out that we actually do accept the testimony of objects which we do not suppose to have minds. Certain objects furnish us with signs or symbols that have for us a meaning, which meaning we accept as true, even though it be in regard to some fact we can not actually observe. The recording thermometer and barometer testify as to the state of the weather; the talking scale announces to us our weight; the moving-picture film, or the ordinary camera film, testifies to events that have occurred long before; the

[1] *The External World*, pp. 84, 82.

dictagraph testifies as to what the employer said at some time when we did not hear him speak; the automatic block signal system used on many railroads testifies to the presence or absence of a train on an unseen part of the track. And so we might go on. Now, what is the ground for accepting the testimony of these machines? It surely is not that they are made by human beings and are thus known to be accurate, for many instruments made by human beings are not accurate and are not recognized as giving reliable testimony. And, contrariwise, we accept the testimony of things not made by man, as for instance, the testimony of rock strata as to the age of the earth, of rings in a tree trunk as to the age of the tree, *etc.* The answer is, rather, that we accept the testimony of machines and natural objects on the basis of the principle of uniformity; we rely on their behaving in cases not observed as they behaved in cases where they were observed.

Is the situation any different when we consider the evidence for accepting the testimony of a human being? As a matter of fact we rely upon inductive evidence here also. If a human being has been detected in many exaggerations and falsehoods, his statements are taken *cum grano salis.* If he has a reputation (built up through inductive evidence) of truthfully reporting what he observes, we accept his testimony.

It is, of course, true that human beings are organized in a much more complex manner than are recording thermometers and talking scales. The responses of human beings are more variable than those of machines and hence their testimony is less reliable. And, in fact, when we have a conflict between the reports of a human being and of a machine we usually accept that of the machine. Our reliance upon the testimony of machines rather than upon that of human beings is also based upon inductive evidence. The addition of the hypothesis that human beings have minds does not increase the reliability of their testimony, but rather decreases it. If they have thoughts, hopes, desires, *etc.*, and if their minds ever act on their bodies, many new causal factors are introduced into their responses which make these responses more variable than would be the case if their actions were subject to physical causes only. Hence the testimony of such creatures would probably be less reliable than the testimony of non-conscious human beings.

Let us take some concrete examples. Why do we accept Archimedes' testimony to the effect that a body immersed in a liquid loses a weight equal to the weight of the displaced liquid? We accept it probably because scientists of to-day have experimented and found the same results. And why do we accept their testimony? Ultimately, because we can, and occasionally do, go into the laboratory

ourselves and, performing the same experiment, verify the conclusion. Ordinarily we do not take this last step because scientists have built up for themselves, inductively in our experience, such a reputation for accuracy in reporting results that the agreement of a number of them, and the disagreement of none of their fellows, constitutes good evidence of the truth of their statements. If, on the other hand, a scientist publishes the result of an experiment which no one else can verify, we do not accept his testimony, unless he has built up for himself an extremely good reputation for reliability. Even then we are likely to distrust his conclusions if he has gone out of his own special field. Witness, for example, the general distrust of Sir Oliver Lodge's "psychical experiments."

Einstein's startling theory is being accepted, *not because of a widespread belief that Einstein is conscious,* but because many experiments have been performed which verify his view. Let us suppose for a moment that Einstein is not conscious, that he is merely a marvelous machine which automatically carries on the complex activities of life, and automatically gave statement to the famous theory. According to Russell this reduces the theory to "noises and shapes," and so it does. But Russell would add that, in this form, "it cannot be regarded as evidence of the facts which it reports." Is this so? Let us suppose Einstein's theory to be what it actually is for us, a set of noises or shapes. Would the meaning which we derive from these noises and shapes be any the less there and should we believe it to be any the less true? We believe it, not because we assume Einstein to be conscious, nor because we have verified it ourselves, but because we have in past experience ascertained that the meanings which we derive from the words uttered by Einstein, and by people like him who testify as to the truth of what he says, are generally true. Whenever we have ourselves checked the results offered by scientists we have found them to be true. In our past experience we have found the testimony of scientists to be so accurate, that, in a new case where we have not checked their work, we hold that the probability of their testimony's being true is very high. It is only in so far as our acceptance of the views of scientists is based on inductive evidence that we are rationally justified in holding that the meaning which we gather from their words is true. Anything beyond this is merely blind faith. Doubtless we entertain such blind faith in the reliability of testimony to a considerable extent, but to say that we "postulate" its validity would merely be to say that we have faith that our blind faith is justified.

The conclusion of this paper is, then, that the test of testimony is consistency with itself and with facts known to the hearers to be facts, and not at all the consciousness or lack of consciousness of the

testifier. The addition of the postulate of other minds adds nothing to the evidence for the validity of testimony. We can build up a coherent system of knowledge without supposing other consciousnesses. Their existence is not necessary for *cognitive* purposes; it is merely something that, as *emotional* beings, we hope is true.

CHARLES A. BAYLIS.

UNIVERSITY OF WASHINGTON.

EPISTLE TO A NEO-REALIST

DEAR COLLEAGUE:

I was very glad to get your letter, in which you state what you feel to be the defect of critical realism, because I believe that critical realism, if conceived as it should be, is not open to this objection, and you give me an opportunity to explain myself. You write:

"My main difference from you and your friends is just this: You say, 'No experience gives certainty as to whether the object experienced is real.' I agree to this. But then you go on to infer from the doubtfulness of the coincidence of the perceived and the existent their definite non-coincidence, or numerical duality. And this is fatal, because if all immediately experienced objects are mere states of the subject, then also all *mediately* experienced or thinkable objects will be equally internal—for the latter are only functional extensions and rearrangements of the former. Your new critical realist view of epistemological dualism, just as much as Locke's older form, contains the cancer of subjectivism and ultimate solipsism. I think the only way out is to recognize that the perceived and the existent objects are like the points on two lines, independently determined in their causal sequences but constantly intersecting."

The difficulty you raise—that we must not make of what is immediately experienced a veil or screen cutting us off from reality—is not new to me. Is it not rather a commonplace of epistemological criticism? I have long been aware of the necessity of not making what is perceived distinct *at all points* (your simile of the line!) from what exists. But there is a complementary necessity, to which it does not seem to me that you neo-realists pay sufficient attention: that of arranging so that what is perceived and what exists shall not be identical *at the other points*—that is, whenever and so far as the perceived betrays us. The state of the case seems to be, if we will be perfectly candid, that you neo-realists account excellently for truth and we critical realists for error, but that each side has a difficulty when it comes to doing the other thing.

Now I think it is *our* duty to admit squarely—and I should be glad if you could consider it as a step in your direction—that what is perceived and what exists are identical *when and so far as we perceive truly.* This, however, leaves it entirely undecided what it is to perceive—what is the exact nature and mechanism of this function, the existence and possible truth of which are not in question.

I think you put your finger on the important point when you speak of the "doubtfulness" or "uncertainty" of knowing. We need a theory which shall make it equally possible to perceive truly and to perceive amiss. Critical realism, if understood as asserting the complete duality of what is experienced and what exists, makes it impossible to perceive truly, or indeed to perceive the object at all; neo-realism, if it insists on their complete identity, makes it impossible to perceive anything that is not real, or anything otherwise than as it is. There must, therefore, be some disengaging of the experience from the object if error is to be possible, and some vital bond between them, some sort of unity, if there is to be knowledge.

The solution I would suggest is that knowledge is a function in which sensuous experiences are used as signs; that the use of them as signs endows them with meaning; and that what is meant is the object.

Thus, in memory we have an image, which is only a faint copy of the original experience (for it is not nearly so vivid), and by using it as a sign we succeed in meaning that experience, or, as we say, "remembering" it. We do really remember it, because what we mean by the image is the experience and nothing else. It is true that we are able to mean it only because we behave in a certain way. (This might seem to put meaning outside the mind and, so to speak, in the muscles: but that would be to forget the kinæsthetic sensations informing us of our attitude, which give us the *sense* of meaning or intending.)

Or take the case of double vision. Here there are two sensuous experiences, and it would be natural to intend by them, that is, to perceive, two objects, if we did not know how they have been produced. Knowing this, we abstain from the attitude that endows them with meaning, and they remain for the moment sensuous experiences unreferred. In this character they have no connection with anything but the brain. If, now, we return to normal vision, the single sensuous experience is spontaneously used as the sign of an object, and its reality taken for the object's reality. We really mean by it an object beyond it, not the sensuous experience itself.

An example that shows this clearly is that of a bird flying so far away in the sky that it appears as a mere point. Surely it is

absurd to suppose that this punctiform experience is what we mean by the bird, or is a part of the bird: it is a mere sign, and the bird is what is signified. Nor do we mean by the bird the entire collection of the possible experiences of it: they are too multiform and mutually inconsistent, and, moreover, are all *later* than the object they reveal.

On the other hand, we do, in my opinion, mean by the object something in the same world with, and even fundamentally of the same nature as, the sensuous experiences: so that I am at one with you in holding that the world consists of nothing but sensuous experiences; only I consider that those *constituting the self* are inside the body, and referred outside and made into perceptions of objects only as signs.

The distinction between a sensuous experience considered in itself, and the meaning brought before us by using the sensuous experience as a sign, enables us to understand how through sight, hearing, and touch we can be aware of a single space. These three senses are focussed on a single external continuum. On your theory, which makes the object and the sensuous experiences identical, there ought to be as many spaces perceived as there are senses.

You will perhaps say that my theory still contains "the cancer of subjectivism," because it places the object both of memory and of perception, as it were, out of our reach—admitting our access to it only through meanings. I think the *spirit* of this objection is sound, but not its letter. I have a complete answer to it. For, as you make memory mediate and only perception immediate, so I make memory and perception mediate but sensuous experiences themselves (as distinguished from subsequent awareness of them—for they are not aware of themselves) immediate. The immediate is the medium of all knowledge, but not itself knowledge. And I would remind you that it is *cogito ergo sum* that is infallible (so far as anything is), not *percipio ergo res sunt*, as you would like to maintain.

There is just one qualification that is needed to this, and that is that what is immediate, and real, and the type of all reality, is not sensuous experiences as they appear to us when we look back at them, but those experiences themselves, as they elapse in the infinite successiveness of time. This implies a doctrine of introspection, which I must not develop here.

The conception of knowledge, then, that seems to me best adapted to reconcile its truthfulness with its possible fallibility is that it is a function of *meaning*, in which sensuous experiences are used to mean real things. There is something blind about meaning: it aims at its object like a gun (the simile is James's!), and may hit it or miss it. It combines the real absence of the object with its presence to the

mind, so that we have that "presence-in-absence" which is the characteristic of knowing.

In my contribution to *Essays in Critical Realism*, pp. 240–1, I gave a solution of your difficulty essentially the same as this, which seems to have been overlooked. What I here call the meaning I there, following Santayana, called the "essence." I insisted that, when and so far as knowledge is correct (and I should hold that in sense-perception, in view of the secondary qualities, there is always an element of incorrectness), the essence given and the essence embodied in the object are identical. In other words, we directly contemplate the essence of the object. And I may add that our attitude and belief are directly addressed to its existence.

But I *think* (it is so hard to remember the state of one's ideas five years ago) I was not then sufficiently conscious of the distinctness of the essence given from the sensuous experience; of the fact that the latter, with all its vividness, is in (though not before) the mind; and that the essence is an entity of a purely intellectual sort, grasped but not (strictly) felt; and tended to fuse the two, and to think that the only experience is the referred one. At all events, I now feel the very great advantages of the term " meaning " as a description of the central datum, and inevitable starting-point, of epistemology, as compared with the purely logical term "essence"; not the least of which is that, by its very form, it points you away from itself, to the object of which it is the contemplation and to the subject who contemplates, and so prevents hypostatization of the essence into an object.

Now I have done what I could to bridge the gap between our theories, and I think you will admit that I have come a certain distance in your direction. It would interest me to hear how my well-meant advances are received; and whether you on your part can not see your way to come a step towards us. Are meanings not enough? Can not the object be properly saluted unless it be embraced?

C. A. Strong.

Fiesole, Italy.

THINGS EXISTENT AND THINGS PERCEIVED.

A Reply to Dr. Strong

IN his "Epistle to a Neo-Realist" [1] Dr. Strong essays a treatment of our common problem that is designed to minimize rather than emphasize the differences between the "New" and the "Critical" forms of Realism. Such a desire for agreement in philosophy is surely as pleasant as it is rare; and I will do my best to reach the olive branch which he does me the honor to extend.

[1] P. 312.

The epistemological problem with which we are concerned is the problem of the nature of the relation of the objects, events, or things which an individual apprehends to the objects, events, or things that exist. The conscious individual is related *logically* by similarity and by difference to all other thinkable things existent or non-existent; he is related *physically* and *causally* in space-time to all other existent things, known or unknown; he is related *cognitively* to certain things some of which exist and some of which do not. It is the nature of this third type of relation by which a conscious individual is brought into a peculiar kind of contact that is neither physical nor logical with things other than himself which constitutes the problem of knowledge. To the pragmatist and positivist this problem seems unimportant or even artificial. To the idealist it seems to be the key to all other problems. To the realist it appears as one among many problems, the right solution of which removes confusion and clears the road for other work.

The principal difference between Dr. Strong's theory of the cognitive relation and my own theory lies in this,—that if I understand him, he would regard the content or image that figures in veridical perception as numerically non-identical with the existent object, though "meaning" it; while I should regard the image before the mind in veridical perception and the existent object as numerically identical, but differing in their *causal* contexts and in their *histories*. By this I mean that the relation between the existent object and the truly perceived object is like the relation of Mr. Coolidge and the President of the United States. They are now numerically one in the sense that they occupy the same position in the spatio-temporal series. Mr. Coolidge "is" the President, but the history of Mr. Coolidge is not the history of the presidency.

A good way to seek for a future agreement on any point is to begin with a consideration of some similar point in which agreement is already attained. The individual cognizes objects in two ways, perceptually and conceptually. As to the nature of perceptual cognition Dr. Strong and I disagree; to use his own figure, he believes that the mind "salutes" the object, but does not "embrace" it, while I hold that the perceptual salute can not be properly given unless the object *is* embraced,—at least to the extent that a stream of water can be embraced though all the while it flows with cool indifference through your encircling arms.

But now as to conceptual cognition, I take it that Dr. Strong and I are agreed that the very objects themselves can appear in "consciousness" or "before the mind," and that here at least what figures as "the content of cognition" is not some ghostly "image" which merely *resembles* and *means* the object. To illustrate: when I con-

template or conceptually cognize some spatio-temporally distant event such as *Cæsar crossing the Rubicon*, the thing before my mind is not a mental state or image or picture of Cæsar crossing the Rubicon, it is that very event itself. Any denial of this would affirm it and thus be self-contradictory. If, for example, I were tempted to say, "What I can think of is never what I believe to exist," the last few words of my statement would be devoid of meaning. At least in thought each conscious subject embraces all mentionable objects, existent and non-existent. From this point of view it follows that all mentionable things can be logically divided into four classes with reference to a given individual at a given instant:

1. Known truths: things that he conceives and that exist.
2. Known falsities: things that he conceives and that do not exist.
3. Unknown truths: things that he does not conceive but that exist.
4. Unknown falsities: things that he does not conceive and that do not exist.

Things that exist—like fish—function in their own right and produce direct effects on what is spatio-temporally contiguous to them. Things that do not exist—like mermaids—do not function in their own right, and the only effects they produce are indirect or vicarious—in and through the minds that entertain them. An object when cognized or contemplated acts as an unmoved mover, producing changes without itself undergoing changes. *Cæsar crossing the Rubicon* produces changes in the mind of any one who thinks of it, but no thinking of a past object can produce a change in it. It is the failure to realize the *one-way* type of causality involved in the cognitive relation that is responsible for the various forms of subjectivism. Because facts affect us through our cognition of them it is falsely supposed that we in turn affect them by cognizing them. And thus the whole world of things known comes to be regarded as in some queer way a construct or creation of the knower, and dependent or partly dependent upon him. No sooner is this initial error of the subjectivist committed than the absurdities of its solipsistic implications loom up, and the classic struggle to escape from them begins. This struggle has various forms, all of them futile. We may say that the creation by the subject of the world of objects is "logical" or "transcendental" and that it leaves the world of things realistically independent in every ordinary and empirical sense. This is the way of German Idealism. Or we can say that in cognizing things we only create their meanings or qualities and that the brute facts themselves are left with their independence un-

impaired. This is the way of British Phenomenalism. Both the German and the British ways prove unsatisfactory and unstable. "Transcendental creation" of the world as known turns out to be either a gratuitous pseudo-theistic mysticism or else an empty restatement of the whole problem. While British phenomenalism in positing the independence only of brute facts naked of meaning posits the independence of what is meaningless—leaving everything that can be talked about dependent on the self. With such alternatives to choose from it is no wonder that many attempt to escape by declaring the whole problem artificial and refusing to discuss it.

Now I assume that Dr. Strong as a realist will agree that things can enter the field of our conceptual consciousness and become objects for us without undergoing alteration or change of any kind. And I assume that he will also agree that we must think of existing objects and conceived objects as two kinds of groups each independent though not exclusive of the other. Any object or essence may be a member of neither, either, or both of these groups. The very object that is conceived by me may also be, though it need not be, existent in its own right in space and time. "Dr. Strong in Fiesole on April 15" is an object of my thought and may also be a fact. The "two" objects may be numerically identical in every respect. In which case the thing I conceive would not merely *mean* the thing that exists, it would *be* the thing that exists. Things that are indiscernible in qualities and in position are to that extent indiscernible in meaning and therefore identical. But, you may ask, why then is it that we can not discover by inspecting the objects before our minds in the moments when they are before our minds whether they are existent or non-existent? Or, as Dr. Strong might put it: *If objects as conceived and objects as existent are identical, how can error be possible?* To which I answer: Error is possible (and indirect testing of the veridicality of appearances is necessary) just because, and only because, there are two independent causal contexts to which one and the same complex of qualities and position belong. To know that a point belongs on one curve does not tell me the nature and course of the other curves to which that same point may belong. What the "Dr. Strong in Fiesole on April 15" has been and will be *qua member of the society of existent things* is determined primarily and proximately by factors quite outside my organism. What the "Dr. Strong in Fiesole on April 15" has been and will be *qua member of the society of my objects of thought* is determined primarily and proximately by factors inside my organism. I am assuming that I am fortunate enough now to have the object of my contemplation also an object in nature. Has there been in the past and will there be in the future a coincidence of Dr. Strong as contemplated by me and Dr. Strong as existent? Maybe, and maybe not.

Now if the Critical Realist does not agree with all that I have asserted in the foregoing analysis of a supposedly veridical case of *conceptual* cognition, I shall be surprised and disappointed. The statements that I have made seem to me to constitute the postulates of any discussion of the problem of knowledge; and I honestly should not know how to talk with a person who would not admit that "things conceived" and "things existent" were at least possibly identical. The only reason I have dwelt at such length upon statements on which we are agreed is because the best chance for our coming to a future agreement as to the relation between "things perceived" and "things existent" is to make explicit our present agreement as to the relation between "things conceived" and "things existent."

For Dr. Strong, perceptual cognition does not bring the cognizing individual into actual contact with the existent object; it brings him only close enough to "salute" the object with a meaningful gesture. For me, perceptual cognition does bring actual contact with the object, and contact that is of the same closeness as what we have in conceptual cognition. All I can do towards an *entente* is to set down the kind of thing I seem to find when I analyze my processes of perception and of conception.

I shut my eyes and *conceive* or think of a chair ten feet in front of me. Now I open my eyes and *perceive* a chair ten feet in front of me. The conceptual and perceptual experiences differ in two principal respects—as to their *content* and as to their *relation to the knower*. First, as to content: the chair as conceived lacked steadiness and definiteness of sensory detail; its color and shape were vague and I had the same difficulty in keeping my attention fixed upon them that I have in observing an object out of the corner of my eye. Perhaps to offset this evanescence I kept muttering the words "chair," "ten feet away," *etc.* The linguistic responses helped to keep my wavering attention fixed and also they seemed to make the relations and functions of the chair predominate over its intrinsic qualities. Now when I opened my eyes and saw the chair, the vagueness of color and shape gave place to complete definiteness; the flickering and wavering of my attention gave place to a continuous and effortless absorption in my object. I ceased to mutter and was silent. The relations and functions of the chair were no longer apprehended as primary, but became rather as James described them, a fringe of meaning, attached adjectivally to a predominantly sensory substantive. I shall assume that both the conceptual and the perceptual cognition were veridical; that there was neither delusion nor illusion; that the qualities, relations, and locus that were before my mind in each case were also present in their own right and on their own account in nature. But while I assume

this, it is not necessarily true, nor is it relevant. I may have been partly or wholly mistaken in either or both of my apprehensions. The secondary qualities of color, for example, may not have existed in the place where I vaguely conceived them and definitely perceived them. To the extent to which they were absent, my apprehension was false. Whether the secondary qualities that appear to us do really exist outside the organism will never be known until we can compare the forms of motion and stress on the surface of bodies with the forms of motion and stress in those parts of the brain that are the proximate determiners of our apprehending the qualities in question. If the intra-neural and extra-neural states are the same then things will really be in those respects what they appear to be,—otherwise not. But even if (in accordance with common-sense, and in opposition to traditional science) the secondary qualities should prove to be actually existent in material objects, the physicist would do well to regard them as epi-phenomenal concomitants of the vibrations or primary qualities that sufficiently determine the behavior of non-living bodies. The physicist as such has no interest in the intrinsic character or private life of the events in nature. He needs to know only their spatio-temporal relations; whether they are in themselves red or blue, shrill or bass, pained or pleasured are matters of complete indifference from the standpoint of science.

Now that I have described as well as I can the differences in the content of the same object as conceived and as perceived, I turn to the second set of differences between the conceptual and perceptual experiences.

When I *conceive* the chair ten feet in front of me, I do not experience any continuous series of things between me and my object. When I *perceive* the chair I do experience this series of relating elements. And herein lies the really important difference between the two kinds of cognition—not in their somewhat different contents, but in the utterly different types of relation between the knowing subject and the known object. I can not perceive a chair without perceiving the bridge of spatial extension between me and the chair. It is this felt continuity of the space of the chair with the space of my body that gives to the chair as a perceived object an *orientation* which conceived objects lack. The latter are in this respect like landscapes in a picture. They may be vivid enough intrinsically, but we should not know how to walk into them. And conversely, no matter how schematic, dim, and wavering a perceived object might be, our bodies would take a set toward it, and we should in some fashion experience a continuity of space (or time) between it and us.

Now I can find nothing in these differences between perception and conception to justify the procedure of the Critical or dualistic

realist in putting the perceptual contents "inside" the mind and the conceptual contents "outside" the mind. In both cases the object *appears* as outside me and in each case there is no guarantee that I am not mistaken. The perceived chair may be an unreal object and so also may the conceived chair. There may be nothing like a chair in the space ten feet in front of me. In that case the chair functions only vicariously through the agency of my nervous system; whereas if it is real either when I conceive it or when I perceive it, then besides functioning vicariously through its effects in my organism it is also functioning directly and in its own right in the space outside my organism.

No one would claim that the perceived chair *appeared* to be inside the perceiver. If it is to be located inside him it must be on other grounds than that of its appearance. There are, of course, reasons for believing that things perceived are inside the mind; but there are two remarks that may be made about these reasons: (1) they are not good reasons, and (2) such as they are, they apply quite as strongly to prove that things *conceived* are also inside the mind. The principal reason that tempts a person to think that the content of his sensory apprehension is inside his mind is the fact that the primary determiners of his perception are not only vaguely "inside his mind," but quite definitely *inside his skull.* Which of all the possible things existent and non-existent I shall at any moment perceive depends on what processes are taking place in my brain at that moment. And if the objects perceived are to be located in the same space as the processes that determine the perceiving of them, then, of course, they will be not only inside the mind, but inside the skull. But this argument if valid will prove that everything I can think of or conceive is also inside the skull; for which of all the possible things existent and non-existent I shall at any moment think of depends on what processes are taking place in my brain at that moment. If things known had to be in the same place as that in which the events conditioning the knowing were, then the furthest nebula, the whole of past time, and the skull itself would have to be inside my skull. Obviously the argument proves too much. Now Dr. Strong does not use this argument, and the only reason why I mention it is because I believe, without meaning to be offensive, that in spite of its absurdity it lurks unacknowledged in the minds of all those who, like the Critical Realists, wish to put the perceptual contents of experience inside the perceiver; and thus lurking it furnishes the real driving power behind the other arguments that are used.

The argument that Dr. Strong does use is set forth in his illustration of the bird seen far off in the sky. The perceptual content is small in extent, and is corrected by the conceptual fringe of what is

known from past experience about the true size of this kind of bird, and what is known about the laws of optics. This supplementing of the immediate appearance by the mediated interpretation Dr. Strong takes as justifying his basic claim that the perceptual content is not identical with the external bird itself, but is only an internal state of mind that points to or *means* the distant object. Now, I admit that the perceptual content is enriched and corrected by the more reflective and conceptual content, but I can not admit that the former is any more internal than the latter. It seems to me to be a case of one externally appearing thing meaning or suggesting another externally appearing thing. In the big bird that figured before the mind as conceptual content there were more qualities that were existent than there were in the little bird that figured as perceptual content. But this doesn't mean that the little bird was a psychic state. Suppose, for example, that Dr. Strong's adventure with the bird had had a sequel, and that more careful study of the situation had revealed the fact that it was after all a little bird near the window that was the actually existent object. Then it would have been the percept rather than the concept that would have coincided in its property of littleness with reality. And the conceived bird would have had to take its turn at being an internal mental state. It is as true that percepts correct concepts as that concepts correct percepts, and in neither case should the correcting of the inadequately known by the more adequately known be interpreted as a passage from an internal mental state to an external physical object.

The sunken rock on which a realistic theory is likely to be wrecked is the cognized object that turns out to be non-existent. There is a strong temptation to put it inside the mind merely because it does not cause changes outside the mind. Diana and the mermaids have produced effects in the world through the minds of believers. But if that is to constitute them mental states, then all genuinely existent objects that are objects of belief must also be classed as mental states and we are landed in subjectivism. So even if Dr. Strong were to convince me that perceptual contents or what I have been calling perceived objects coincided with existent objects in fewer respects than do conceived objects, I still should not believe they were any more "internal" or "psychic" than their luckier associates.

I am afraid that I have not been able in all this to reach the olive branch that Dr. Strong profers in his Epistle. But I have tried to reduce our difference as to the nature of perception to a single issue which in conclusion I put in the form of two questions: If a content directly before the mind in perceptual experience is not discoverably different from an externally existent object in spatio-temporal position and in some at least of its qualities, how can it fail to be in

those respects *identical* with that externally existent object? And (in veridical cognition) why is it not with things perceived as with things conceived, that they differ from things existent not in themselves but only in the intra-organic and extra-organic causal contexts by which their behaviors are respectively controlled?[2]

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THE TWENTY-FOURTH ANNUAL MEETING OF THE WESTERN DIVISION OF THE AMERICAN PHILOSOPHICAL ASSOCIATION

THE twenty-fourth annual meeting of the Western Division of the American Philosophical Association was held at the University of Chicago, April 17, 18, 19, 1924. The distinctive feature of the meeting was the discussion of Kant and his work, which occupied two regular sessions and the smoker on the first day. It was generally recognized that his ideas have been very influential. But if we assert that his ideas have "survived" we must admit that they have undergone radical and divergent transformations, so that Kant himself would be far from satisfied with the degree and kind of their survival. There was no agreement as to whether his general method is a model of intellectual integrity or a sad case of introversion. There was no laborious exegesis of the critiques as such; there was evidently no Vaihinger or Kemp Smith among us. Instead, the speakers were inclined to take Kant as a point of departure. At the smoker, Mr. Hinman's lecture, with the lantern slides collected by the late Chancellor Andrews, gave a vivid idea of Kant's personal appearance and some of his surroundings in Koenigsberg.

The other sessions were devoted to miscellaneous papers and their discussion.

[2] From lack of space I have omitted in my Reply the discussion of *remembered things*. But I may say here that I think that their status is essentially the same as that of perceived things. By which I mean that the event as remembered differs from the same event as conceived not in temporal location, but in the fact that in memory there is experienced a bridge of intermediate time linking up the date of the remembering with the date of the event remembered. In merely conceiving a past event this bridge of continuity is wanting. In short, the remembering of events distant in time is just like the perceiving of things distant in space, except that in the latter experience the felt continuity is primarily spatial and clear, while in the former it is primarily temporal and vague. In all cognition, whether *immediate* (as in perception and memory) or *mediate* (as in conception), the events cognized occupy positions that are spatio-temporally distant from the brain-events that do the cognizing. How it is possible for what is here-and-now to reveal what is there-and-then is the epistemological mystery, a solution of which is to be found in a theory of consciousness that seems, I regret to say, to be believed in by nobody except its author.

Here are a few of the more stimulating ideas found in the reporter's notebook: Kant's doctrine of synthetic unity survives in modern doctrines of the interpretative activity of mind; but his categories must be replaced by instincts—if there are instincts. . . . The rigidity of Kant's categories is due to the influence of mathematics, physics, and astronomy in their Newtonian form. He could not be expected to foresee the more plastic developments of chemistry and biology. He could not be expected to create the more relativistic physics or the more objective psychology that he needed. . . . Kant's treatises on ethics are not a deflection from a straight path marked out by the *Critique of Pure Reason.* Rather they continue the development of three ideas that dominated Kant's outlook from early youth: the primacy of will, the reality of freedom, the duty of faith. The *Critique of Pure Reason* is a detour by which he circumvented certain obstacles in the path of this development. . . . Kant's anticipation of the nebular hypothesis in 1755 showed marvelous sagacity and unsurpassed scientific imagination. But his observational and mathematical basis was inadequate and his theory was encumbered with theological apologetics and fanciful speculations about the inhabitants of remote worlds. . . . A forgotten service of Kant consists in his deflation of the natural theology of his time by his Transcendental Dialectic. The all-too-easy arguments for a vague natural theology are again being given currency. A Kantian critique is needed in behalf of intellectual integrity and to remove obstacles to a genuine ethical orientation. But will Kant's old critique do the job? . . . Pascal seemed anti-rational; but he served reason in his own way by reinterpreting Catholicism in a broadly humanistic fashion. . . . Failure to master the environment leads to introversion, which is expressed in supranaturalistic religions, and in philosophies which give priority to universals or to consciousness. But is not mastery of the environment a Utopian ideal, and therefore symptomatic of introversion? . . . Dewey's logic owes much to T. H. Green. But the sense in which one philosopher "influences" another needs clarification, involving the whole question of the categories of historical process. . . . Reality is that of which we must take account for our purposes. But since purposes diverge, why begrudge any man the reality of which he takes account; and since not all attitudes are purposive, why begrudge any man the realities he merely encounters? . . . The method of multiple hypotheses will not destroy the investigator's predilection for the offspring of his own brain: the father of triplets is not the humblest of parents. . . . Mr. Brogan's statistics ascertain group valuations instead of guessing at public opinion. But are they a study *in* ethics or a propædeutic thereto? . . . If *work* can not be made a

good there is little hope that the life of the average man can be made worth living. Forms of ethics which find good only in leisure, or in the work of a few intellectual and artistic professions, are toys for a privileged class. . . . Behaviorism is the public burial of Mind, but she was already strangled in the house of her friends. From Locke to Wundt and Titchener, empirical philosophers and structural psychologists denied to her the teleological function of objective reference, which was the breath of her life. Stesichorus relates that it was not Queen Helen, but her wraith only, for which the Greeks and Trojans battled at Troy, "while she was borne by the gods to Egypt, and there remained until the day when her lord, turning aside on the homeward journey, should find her there." (A. S. Way, argument to the Helen of Euripides.) Perhaps it will prove that Mind has shared the privilege of Helen. . . . Scientists of all sorts are turning to philosophy for orientation. But if they can not find help among philosophers, they will declare us intellectually bankrupt and take over our assets (a few professorial chairs). Therefore, it behooves every philosopher to master some science or pseudo-science (sociology was mentioned) and learn to help in its orientation.

The annual dinner took place on the evening of April 18th and was followed by the presidential address. Our genial president, Mr. Sellars, realized that a full day's program and a full stomach leave even philosophers ill disposed toward acrobatic dialectics. Accordingly, he chose the plain historical method, and led us smoothly but swiftly through the whole history of the human mind (as regards Naturalism) from the *Urdummheit* to the present crisis. The longest sojourn on the way was in the tranquil garden of Epicurus.

Of the meeting as a whole it can be said that "a good time was had by all." The perfection of the external arrangements and the hospitality of the local members met with warm appreciation. Moreover, the formal sessions seemed to hold the interest of the group as a whole. A frequent "speech reaction" was of the type, "I don't remember a meeting I enjoyed so much." Whenever boredom threatened, some fresh idea cropped up to rejuvenate the members' interest. Discussion was outspoken, vivacious, and free from self-consciousness. The voice of youth was heard, serious and emphatic. And although some heads were bald and others gray, no one seemed old when he spoke.

Furthermore, discussion was amiable. Like the kittens praised by Josiah Royce, we had learned to play without scratching. The only word which caused a temporary commotion was the word "preacher"; but this proved to involve a Comedy of Errors: the member who, through a natural mistake, supposed the word was applied to him, is not a preacher; and the member who uttered the

word, but who disclaimed the intention of applying the (opprobrious?) term to any fellow member, confesses to twenty years of preaching experience.

In spite of all these pleasing features I fear we should not have satisfied Mr. Randall, whose report of the last eastern meeting appeared in this JOURNAL. No one undertook to correct the work of Einstein, or to reconcile E. H. Gary and W. Z. Foster. In this connection the following evidences of *rapprochement* with the sciences and with concrete social problems should be noted. (*a*) Such a *rapprochement* was vigorously urged in the papers of Messrs. Smith and Hudson. (*b*) Kant's contribution to cosmology was interestingly discussed by Messrs. Moulton and MacMillan of the Department of Astronomy and Astrophysics of the University of Chicago. The society was very grateful to them for their coöperation. (*c*) Mr. Tufts reported that the Philosophy Department of the University of Chicago will coöperate with social scientists in a survey of the modern metropolitan conditions presented by life in Chicago. It must be confessed that (*b*) was a remote retrospect, and that (*a*) and (*c*) were programs for the future, not reports of achievement. Still they showed at least that we are not utterly at ease in Zion.

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BOOK REVIEWS

Matter and Spirit: A Study of Mind and Body in their Relation to the Spiritual Life. JAMES BISSETT PRATT. New York: Macmillan Co. 1922. Pp. ix + 232.

After reviewing the chief historical attempts to solve or formulate the mind-body problem, Professor Pratt sets himself the task in this volume of a vigorous championship of some form of dualistic interactionism. In a few bold strokes he sketches the main outlines of such a position, and describes what he conceives to be its bearing upon the moral and religious life.

Materialism in its older forms is summarily dismissed. In so far as it identifies mind with the brain or the like, it is found to be immediately absurd; and in so far as it denies the efficacy of consciousness, it implies that arguments are inoperative as such, and that rational persuasion is an illusion, thus involving itself in a contradiction, since it seeks to persuade men of its own truth as a theory by a resort to that rational argumentation which it does its best to discredit. The modern revivals of materialism (Warren, Montague, Sellars) are confronted with the dilemma that they must either make consciousness ineffectual, or identify it with a form of energy. The latter alternative is regarded as no less unintelligible than the earlier identifications of mind with matter or motion.

Three forms of parallelism are distinguished. Dualistic parallelism is condemned because it involves a miraculous series of unaccountable coincidences. The double-aspect view resolves itself into empty phraseology, since the analogies upon which it is based are not such as to bear a rigid analysis. And lastly, idealistic parallelism introduces new difficulties without removing the old. The idea of regarding the cortex as the appearance of one personal consciousness to another is rendered absurd by the fact that the cortex survives death; and the very notion of such an appearance involves a telepathic form of psychical causation which can not be reconciled with the professed parallelism of the position. And if the physical side of the parallelism is to be viewed as a closed mechanical system, the assumed advantages of the idealistic metaphysics are irretrievably lost. For the alternatives of action and event presented to the mind, and its own relative freedom of determination between them, are rendered illusory by the mechanical determinism that rules the physical aspect of the parallelism. Finally, all forms of this doctrine unite in regarding mind as a mere collection of parts, thus destroying its real and essential unity.

Pragmatism, neo-realism, behaviorism, and objective idealism are construed as ineffectual attempts to deny the existence of a mind-body problem. Such denial involves the repudiation of the empirical actuality of individual awareness, which is condemned as a paradox, carrying in its wake a host of impossible and absurd consequences.

Dualism rests on a solid basis of experience and common sense. Its supposed difficulties are either unreal or unimportant. The commonly assumed impossibility of a causal relation between heterogeneous entities is denied by accepting Hume's analysis of the causal relation as involving only repeated succession, without identity or logical necessity, and without observable compulsion. So far is it from being inapplicable to mind, that the notion of causality is originally derived from our experience of ourselves as active agents. The incompatibility of interactionism with the universal validity of mechanical law is accepted, even vigorously asserted. The principle of a fixed sum of energy in the universe as a whole is challenged in the interest of the creative power of consciousness. The mind's power "to modify the workings of the laws of physics and chemistry" is asserted; it operates "in that tiny realm where personality begins to have influence. Throughout the vast spaces of the physical universe where matter and energy come into no immediate relation with conscious persons, the laws of physics and chemistry have absolute sway. Here no energy is created or destroyed, regular mechanical sequence holds, and on the basis of the eternal physical laws and the actual configurations of matter and energy an omniscient me-

chanic could predict with unerring exactness the whole course of the future. But . . . where . . . there are beings who are not altogether subject to the laws of matter and motion. . . . at many a juncture personal will, reason, purpose interfere with the working of mechanical law and contravene it. Of course the resulting action of the human body in question will be capable, *after the fact*, of being described in mechanical terms. But it was not caused by mechanical sequence, and it never could have been predicted by the most miraculously omniscient mechanist, even if he had been in possession of all the facts and all the laws of the physical universe."[1] The desire for an all-inclusive mechanical formula is unsupported either by logic or experience; it is a "most extreme case of the pious wish or Will to Believe."

The mind which interacts with the body is a self, individual and relatively permanent; this view is made necessary both by the facts of interaction and by the observed unity of consciousness. Its specific nature is revealed in the teleological processes which constitute its functions. These functions display a logical transcendence unknown in the physical and mechanical scheme of things. The dualism thus expounded is described as a dualism of process rather than a dualism of substance, leaving the door open for a possible idealistic interpretation, provided it makes room for freedom and interaction. A free and efficient self must be presupposed in any genuinely moral world. "The fundamental values of responsibility and individuality stand or fall with the Dualistic Philosophy."

Viewed as the statement of a position, the argument of which I have here given an abstract, is clear, unambiguous, excellent. But viewed as an elucidation of the problem with which it deals, it seems to me to leave something to be desired. Opposing views are readily reduced to absurdity and unintelligibility, but they are not explained. Style and contents alike tend to place the volume in the category of those more or less partisan pronunciamentos which perform the service of heartening the flagging spirits of adherents, and perhaps enlightening them; but which are apt to leave opponents cold and unconvinced. Perhaps the chief obstacle to the book's success in the rendering of a larger intellectual service, lies in the somewhat undeveloped epistemology of the causation concept which underlies the argument. Although a major part of the argument is made to turn on this concept, the analysis to which it has been subjected is in my view inadequate.

The author accepts and makes his own the current assumption that the universal validity of the principle of causation, as mechanis-

[1] Pp. 185, 186.

tic science conceives it and applies it to the physical universe, is equivalent to a determinism for which no alternatives are real. In any situation in which such laws apply, only one issue is possible. The popular terminology for causation is adopted, apparently without consciousness of its figurative, not to say mythological, character. The author speaks of the "control" of action and the "determination" of events by natural law, of "interference with physical and chemical law," of "law as producing and regulating or fixing our thoughts." A little reflection should suffice to show that this terminology is illusory; it is an illegitimate importation in the field of mechanical causation, since the conceptions involved in it are teleological, and derive from our experience of ourselves as conscious agents. In mechanical systems there is no other than a logical determination of a purely secondary and ideal character, arising from the relation of such a system to itself. The necessity with which such systems are affected is nothing but the ideal and, therefore, also hypothetical necessity which is exemplified in every syllogism. And just as the syllogistic necessity is by itself utterly powerless to make the conclusion actually true, so the inner logical necessity of a closed mechanical system is without power to make of its content an actual reality. The ideal givenness of a closed mechanical system means that it is hypothetically or conditionally applicable to reality; never does it constitute the knowledge of an actuality before the fact. For if it did, its meaning as an instrument of control would be destroyed. The conception of a closed mechanical system valid of reality makes possible three different forms of practical behavior. We may adapt ourselves in advance to an actuality in which this system is imbedded, when we know that the conditions for its realization are or will be given independently of ourselves; we may ourselves furnish the conditions for its actualization; or we may prevent its ideal content from becoming an actuality. Prevention of what our closed mechanical systems pre-figure is as important a practical by-product of scientific knowledge as is mere prediction; indeed, scientific prediction is always in principle conditional. This consideration alone should be enough to distinguish between the inner necessity of closed mechanical systems on the one hand, and a fatalistic or voluntaristic determination of actualities on the other. The former presupposes the presence of alternatives and contingencies in reality, though not, of course, within the realm of the closed mechanical systems themselves. There is nothing in the conception of a law-governed physical universe (wholly abstracting from the presence of the mind and will of man) to forbid the existence of real alternatives in the actual situations arising within it. The principle of the universal validity of law only stipulates that whatever does happen shall have a formal

structure, and that every particular event shall have a universal aspect.

The causality which is a derivative from our experience of ourselves as active agents is teleological, determinative, decisive of actualities. It is *toto coelo* different from scientific or mechanical causation, the negative characteristics of which have been in part delineated by Hume and Comte. But the technical progress of modern science has added a content and superimposed conventions upon its application in research of which neither Hume nor even Comte were aware; and it is these conventions which constitute the most powerful motives for a parallelistic construction of the mind-body relation. These motives are not adequately canvassed by Professor Pratt, nor does it seem to me that the actual practical purport of their acceptance as valid is completely understood. What is the cortical process, for example, on which the mind acts, according to interactionism; and on which, according to parallelism, the conscious state exerts no causal influence? Surely it is not a hypothetical cortical process, kept miraculously uncontaminated as a purely physical process from the effects of the mind-body synthesis; it must be the actually existing cortical process. Is this process given twice—once before the existence of the conscious process of which it constitutes the bodily mechanism, and once after? A little reflection upon this simple question might show that we are not observers of the act by which the mind-body synthesis is constituted in the same sense in which we observe an ordinary causal succession; and that interactionism, unless it defines itself more carefully than is done in the volume under discussion, is in danger of attempting to count the influence of the mind on the body twice; since the cortical process which it desires the mind to influence is a process which already is what it is because it is the instrument of a conscious function.

The two species of causality noted above are not rival claimants to dominance over reality; they neither exclude one another entirely from the sphere of the actual, nor do they serve to limit one another's application in reality. They are, instead, mutually supplementary in the coming to pass of every event, whether in or out of the mind. The one describes the formal structure of actual and possible events; the other determines their existence, and their concrete nature. Determinative causality is primary; mechanical causality is secondary, and presupposes that the causal factors, whose relations *inter se* it describes, have in some way come into existence, or will come into existence. The antecedent cause no more produces its effect than the effect produces its antecedent cause. Such terminology is only a figurative and misleading expression for a purely logical implication: *if A* is the cause of *B*, and *if A* somehow comes into existence, *then B*

will necessarily come into existence. The necessity in this inference is a syllogistic necessity, and has no significance whatsoever as an actuating, determining necessity in the real world. A scientific law produces nothing, controls nothing, brings nothing into existence; it is only the formal schematism of a factually given, and hence contingent, relation between possible existents.

In saying these things I have perhaps already transgressed the proper limits of a review. I own to a sympathy with the practical purport of Professor Pratt's little volume of addresses; and it is for this reason perhaps that I am a little disappointed that the fundamental problems connected with causation, some of which have been suggested in the above remarks, have either been passed over or in my opinion misunderstood. I could wish that the author had not stressed so strongly the supposed ethico-religious implications of his views. Whether they have the ethico-religious implications suggested or not depends entirely upon their metaphysical correctness on the one hand, and on a host of more concrete intermediary considerations on the other. The argument from consequences adds nothing to the strength of the metaphysical position, but merely introduces new controversial considerations all along the line. In metaphysics, as elsewhere, it seems better to let every tub stand on its own bottom.

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Modern Thinkers and Present Problems. EDGAR A. SINGER, JR. New York: Henry Holt and Company. 1923. vii + 322 pp.

To be lucid without being superficial, to be accurate without being barbarous, has always been the task of philosophers who would write for minds beyond their own peculiar sect. Professor Singer has succeeded in writing a remarkably vivid introduction to the main currents of modern philosophy while he has avoided the two characteristic pit-falls of the traditional text-book. *Modern Thinkers and Present Problems* does not purport to be a comprehensive survey of the confused mass of systems that have appeared in the past four centuries, and it is not couched in a technical jargon that reveals philosophy to the beginning student as an esoteric investigation into some foreign realm. Though on a much briefer scale and written from a very different point of view, it possesses that vital continuity which distinguishes Royce's *Spirit of Modern Philosophy.* This essential continuity is attained only when the author combines with his independent analysis of concepts a portrait of the mind in which concepts arise. In this way the student receives an impression of philosophy as a genuine expression of the human spirit, organic and

fundamental. Otherwise there occurs the sad spectacle of the young scholar who begins in a vacuum of artificial abstractions and never makes his way out of them, another victim of the worst aspect of the academy.

As "An Approach to Modern Philosophy through its History" (sub-title), the book opens fittingly with the transition from the toy astronomy of medieval faith to that endless space with its infinite worlds which Bruno beheld as he carried out the implications of Copernicus. Thence to a most illuminating study of Spinoza with his universe of rigid necessity which has room for human freedom. This apparent contradiction is reconciled through a careful analysis of the ideas of mechanism and purpose, in terms of modern science. Since some beings have the ability to realize their purposes independently of their environment and since life can not be defined mechanically, "There is then no reason why we should not recognize freedom and bondage, good and evil, in certain *parts* of a world that atom by atom is mechanical and purposeless in its constitution." The ethical implications of this distinction are graphically illustrated in a supplementary essay on *Le Disciple* of Bourget. Whether or not Professor Singer's interpretation of Spinoza is acceptable, it is exceedingly important that an elementary and untechnical presentation of these ideas should be available. They are more elaborately developed in Professor Singer's essay on "The Pulse of Life," this JOURNAL, Vol. XI, p. 645 (1914) [1]

A brief study of Hume's psychological morality which does not rest on dubious theological sanctions is followed by a consideration of Kant's elaborate effort to renew the connection between ethics and theology. "The modern idea of tragedy" as defined so originally by Schopenhauer, with his ethics of quietism, is contrasted with Nietzsche's affirmation of life and ideal of conflict.

In the chapter on Pragmatism, the chapter on Progress, and the Retrospect and Prospect, we have a drawing of the threads together and a tentative statement of Professor Singer's own position. As the traditional rationalism was disintegrated in empiricism and finally gave way to experimental science, so the empirical school with its passive method and dichotomy of understanding and desire has been subjected to the critical attack which Kant instigated, but only Pragmatism has begun to formulate successfully. "What has happened to change things since Hume's day is, first of all, just a

[1] *Cf.*, also Professor Woodbridge's essay on "Natural Teleology" in *Essays in Modern Theology and Related Subjects*, gathered and published as a Testimonial to Charles Augustus Briggs on Completion of his Seventieth Year, January 15, 1911, by a few of his Pupils, Colleagues and Friends. (Scribners, 1911.)

deeper searching into the meaning of experience itself, with perhaps this finding: that the reality our empirical science reveals to us is not merely a thing found and received but also *a thing willed and made.*" With numerous illustrations from both literature and philosophy, Professor Singer shows very graphically "pragmatism as a moment in the swing of thought from realism to idealism."

In these days of crudely uncritical identifications of progress and evolution, and equally uncritical sneerings at progress on the part of the ignorant and the anæmic, it is refreshing to read an essay which involves the South Sea islanders as well as the sceptics and the methods of science. Schopenhauer's ideal of peace and Nietzsche's ideal of war are violently antithetical, and yet they both make an appeal to human hearts, and, indeed, to the same human hearts. These philosophies, so persistently separated throughout human history, may be reconciled. The horror of battle is even surpassed by the horror of stagnation. It is after all the principle of James' "moral equivalent," in which a widening of perspective satisfies our polar interests while avoiding the extremes of catastrophe. "The measure of man's coöperation with man in the conquest of nature measures progress."

It is tempting to quote at further length from a book so rich in implications and so graciously written. One may hope that this is merely the prelude to a more independent and detailed statement of Professor Singer's own philosophy. Meanwhile, contemporary philosophy would be greatly benefited if Professor Singer's various essays published in the technical journals were included in a single volume.

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JOURNALS AND NEW BOOKS

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NOTES AND NEWS

Payot of Paris has sent us a little book by M. L. Dugas with the title *Le Philosophe Théodule Ribot*. It is one of a series which is being published under the direction of Paul Gaultier on *Les Grands Hommes de France*. M. Dugas' book is a vivid and delightful presentation both of the personality of Ribot and of his many-sidedness as a thinker. With regard to the former, the author has admirably fulfilled the promise of the advertisement of the book: "M. Dugas raconte la vie de Ribot, fait sortir de l'ombre sa personnalité discrète, fine et nuancée . . ." One gets from the reading a pleasing picture of a great scholar somewhat austere in his attitude toward science and at the same time humane towards his students and associates. In regard to the setting forth of Ribot's philosophy and psychology, perhaps it ought to be said that the author is biassed by a friend's loyalty and a compatriot's enthusiam. The book is somewhat lacking in a genuinely critical estimate of Ribot's work and this is unfortunate in view of the fact that Ribot is one of the outstanding figures in the development of modern psychology. Even now, he can be seen in a perspective which affords the opportunity for a critical estimate of the first order. Perhaps, however, this is not to be expected in a book intended apparently to promote deserved recognition of one among the great men of France. Of Ribot's psychology, the author says: "Cette psychologie est 'plus pénétrante' que la psychologie anglaise et 'plus large' que la psychologie allemande. Elle est bien française, parce qu'elle porte la marque de l'esprit française, la clarté, la précision, la justesse, la sobriété et la mesure, et parce qu'elle rentre dans la tradition philosophique de la France dont elle s'était écartée avec Victor Cousin." One may assent to this as praise and yet deny it the merits of a genuinely critical estimate.